

Women find new challenges at JSC

[Editor's note: This is the second of four articles on the women of JSC for Women's History Month.]

By Jessie Hendrick

After working as a secretary in both the Crew Systems Division and Safety Reliability and Quality Assurance, Jean Alexander was looking for a new challenge. Fortunately for both Alexander and JSC, the arrival of female astronauts opened a whole new field for other women at JSC—equipment specialist. Alexander was one of about 70 applicants for the upward mobility position and one of about 20 women that were interviewed. In 1980, she became part of the team responsible for the support of astronaut activities involving the use of space suits and equipment. The position included responsibilities for the preparation of space suits, troubleshooting, hardware maintenance and repair, fabrication of crew provisions and suiting female astronauts.

"Suiting women astronauts seemed like a big difference in the beginning, but now I know that we all work together to get ready for a training session, and the only difference is who goes into the dressing room for those few minutes of preparation," Alexander said. Currently, Alexander is one of three NASA lead equipment specialists who head a team of contractor personnel who prepare space suits and help astronauts select equipment that fits properly and items they will use during flight, such as flashlights, pens and pencils. During training and the final launch phase, she is responsible for making sure that the right equipment is on hand for each crew member and has been properly tested and inspected. One of her many accomplishments includes being heavily involved in the development of the Enhanced Life Preserver Unit. She helped design, test and redesign the unit until a working prototype was developed. This equipment guaran-

tees that should an astronaut be unconscious and in the water, his or her head will be held above water. Part of her job includes actively supporting every third mission as the suit technician team lead. She helps to prepare equipment for training sessions and flight. Her last mission-related duty prior to launch is to enter the cockpit of the orbiter and strap the astronauts into their seats. The mission that holds the most meaningful memories for her was STS-1. She was able to watch Columbia land and then rode with Commander John Young and Pilot Robert Crippen back to crew quarters. "I was so proud of them, the space program and America," Alexander said. She has not lost that initial reaction of pride and enthusiasm for the space program. "Every mission is unique and every flight has a different crew, my job is very interesting—and my grandchildren think what I do is neat," Alexander said.



Jean Alexander of Engineering's Crew and Thermal Systems Division suits up Astronaut Ken Cockrell before STS-56. Alexander is one of three NASA lead equipment specialists who head a team of contractor personnel who prepare space suits and help astronauts select equipment that fits properly and miscellaneous items they will use during flight, such as flashlights, pens and pencils.

Columbia makes trip to pad

Columbia took aim this week for 16 days in space carrying the first Microgravity Science Laboratory, rolling out to Launch Pad 39A early Tuesday. Columbia remains on track for a launch at 1:01 p.m. CST April 3 to begin STS-83. The crew of Columbia includes Commander Jim Halsell; Pilot Susan Still; Mission Specialists Janice Voss, Don Thomas and Mike Gernhardt; and Payload Specialists Greg Linteris and Roger Crouch. All of the crew members as well as astronaut Cady Coleman, who is training as a possible backup for Thomas, were at Kennedy Space Center this week for a dress rehearsal countdown with the launch team. Thomas suffered a broken ankle in late January, but he is continuing training and is expected to fully recover from the injury.

Shuttle managers are scheduled to meet Thursday, March 20, for a final review of all preparations for STS-83, after which an official launch date will be announced. Meanwhile, Atlantis is in KSC's Bay 3 processing hangar being readied for a mid-May launch on STS-84, the sixth Mir docking mission. Atlantis will bring home astronaut Jerry Linenger from his stay aboard the Russian Mir Space Station and drop off astronaut Mike Foale for a four-month stay.

This week, technicians performed a functional check of the orbiter docking system, completed installation of the main engines and finished checks of the forward reaction control system. Elsewhere, Discovery is in KSC's Bay 2 hangar being prepared for a mid-July launch on its next flight, STS-85, carrying the CRISTA-SPAS free-flying astronomy satellite. Technicians conducted fuel cell voltage tests this week and prepared for the removal of the main engines, scheduled to begin on March 28. Endeavour will be returning to the fleet this month after extended maintenance in Palmdale, Calif. Riding atop the Shuttle Carrier Aircraft, Endeavour is scheduled to land in Corpus Christi about noon March 25 and will be open to public viewing about one hour after landing. The orbiter - 747 combination will fly to Ellington Field in Houston about 9 a.m. CST March 26, refuel, and depart about noon. Public viewing will be allowed from 10 a.m.-noon. Endeavour last flew in space in May 1996 on STS-77.



Thirty civil service and contractor employees visit Kennedy Space Center as recipients of the Space Flight Awareness Award. Front row from left are SFA staff member Mary Chesler, Janie Perez, Debbie Schaller, Denise Dingler, Liz Bauer, Juanita Gibson, Angie Prince and SFA National Panel member Lois Walker. Middle row from left are, Ron Diftler, James McKinnie, Dave Browne, Bob Smith, Doug Fuqua, Dave Ladrach, John Lewis, George Ashworth, Navin Patel and John Chladek. Back row from left are, Tim Early, Norman Knight, Bill Peacock, Jim Callen, Jeff Cullen, Gary Caylor, Lee Jordan, Jack Rainbolt, Howard Flynn, Ken Riga, Brad Peck, Newt Myers, Steve Hornung and Hector Saenz.

Employees honored at STS-82 launch

Thirty JSC civil service and contractor employees watched the night launch of STS-82 as recipients of the Space Flight Awareness Award. The honorees also received a VIP tour of Kennedy Space Center and attended a reception to recognize their dedication to quality. Civil service honorees included: Liz Bauer, John Chladek, Tim Early, Howard Flynn and Debbie Schaller of the Engineering Directorate; Norman Knight, James McKinnie and Angela Prince of the Mission Operations; Jeff Cullen of the Business Management Directorate; Newt Myers of the Flight Crew Operations Directorate; Janie Perez from the Office of the Chief Financial Officer; Dave Ladrach from the Space Shuttle Program; Dave Browne of the Safety, Reliability, and

Quality Assurance Office; Juanita Gibson of the International Space Station Program; and Gary Caylor of the Space and Life Sciences Directorate. Contractor honorees were: George Ashworth and Jim Callen, Lockheed Martin Space Mission Systems and Services; Ron Diftler, John Lewis and Navin Patel, Lockheed Martin Engineering and Science Services; Denise Dingler, GB Tech; Doug Fuqua, Johnson Controls World Services; Steve Hornung, AlliedSignal Technical Services; Lee Jordan, McDonnell Douglas Spacehab; Bill Peacock, DynCorp; Brad Peck, Boeing Aerospace Operations; Jack Rainbolt, Johnson Engineering; Ken Riga, Hamilton Standard Space Systems International; Hector Saenz, Rothe Development; and Bob Smith, The Aerospace Corporation.

Earth Day plans in full swing

New photo contest added to festivities

Planning for JSC's annual Earth Day celebration is in full gear with plenty of activities around the center, including a new photography contest. The main event will be April 22 in Teague Auditorium. This year's theme is "Get Your Earth's Worth," and will feature exhibits, workshops and several new events. A photo contest illustrating this year's theme, or other Earth Day-related ideas, such as photographs of national parks, conservation activities, or wildlife is being planned. The photographs must be no larger than 11- by-14-inches and rigidly mounted on cardboard or poster-type board. Black and white or color photographs will be accepted. All JSC and contractor employees are invited to participate. Judges from NASA's management will award

overall first, second and third place winners and Best Local Representation and Best Theme Representation. Photographs must be submitted by noon on April 18 to Melissa McKinley, Bldg. 45, Rm. 750, and will be displayed in Teague Auditorium on Earth Day. For a complete copy of the rules and for more information contact Melissa at x33127, Mail Code JJ2. Also, an Earth Day 5K Fun Run and 2K walk is being sponsored by the Houston Federal Executive Board. The event is planned for 9 a.m. April 19 at JSC and will be open to all federal employees and their families. Snacks and beverages will be provided. Volunteers are needed for both the Earth Day Planning Committee and the Fun Run. Please contact Jo Kines at x33218 for registration information and details.

Mir crew works to restore oxygen generation unit

Mir 23 crew members spent the week focusing on science investigations and troubleshooting a balky oxygen generation unit called the Elektron. The unit is designed to separate oxygen from the onboard waste water and return it to the cabin atmosphere using the process of electrolysis. The unit has not been working properly. Last Friday, Commander Vasily Tsibliev, Flight Engineer Alexander Lazutkin and U.S. astronaut Jerry Linenger were asked to activate another Elektron unit. They were able to activate the unit, but it was shut down because it produced excessive levels of hydrogen. To keep oxygen at normal levels, the Mir trio is using solid fuel, oxygen-generating "candles," which burn lithium perchlorate and are used primarily for supplemental oxygen when more than three people are aboard. The crew burned several candles over the weekend and this week. While flight controllers consider it desirable to restore the Elektron units to full operation, they are not considered critical and are not the only means of generating oxygen on board Mir. There are enough candles on board to supply oxygen for two months. The crew was told to position fans inside Mir to evenly distribute oxygen throughout the station's modules before activating additional oxygen canisters. The Progress 233 resupply vehicle that undocked from the station Feb. 6 could not be redocked to the outpost as planned last week due to problems with the remotely operated rendezvous system. The main reason for redocking the expended Progress was to test the new remote-control rendezvous system as a replacement for the automatic docking system. No further attempts to redock the Progress were made in order to protect propellant margins for its reentry which occurred Wednesday in the southern Pacific Ocean.

The next Progress resupply vehicle is scheduled to be launched April 6 with an automated docking scheduled for April 8. The new Progress is carrying the upgraded Orlan space suits that Tsibliev and Linenger will wear during their space walk, now scheduled for no earlier than April 16. The Progress also will carry to Mir repair equipment for the Elektron system and the Mir's television transmitter. Once docked, Progress 234 will be unloaded and undocked as the crew practices a manual docking using the rendezvous system at a range of up to 8,000 meters. The Mir 22 crew members returned environmental samples of air and water gathered shortly after the oxygen generator fire in the Kvant-1 module on Feb. 23, which were analyzed by Russian and American toxicologists and found to contain no harmful ingredients.

American Heritage seeking volunteers for July celebration

JSC again will celebrate the wide diversity of its workforce during the annual American Heritage Week set for July 7-11. The Heritage Week committee is finalizing details for daily performances and exhibits in the Bldg. 3 cafeteria, and for the grand finale to be held from 3-8 p.m. Friday at the Gilruth Center. Various local restaurants will serve free food and refreshments during the finale while cultural performers entertain. The committee is looking for volunteers to make this year's event memorable. To volunteer or for more information, call the Equal Opportunity Program Office at x30601.

